ARTICLE APPEARED ON PAGE C-5

WASHINGTON POST
8 September 1985

Reagan's ASAT Boomerang

By Noel Gayler

THE REAGAN administration appears intent on testing our newest anti-satellite weapon soon. Many observers think this move is part of a new get-tough offensive on the part of the United States, to get a leg up on the Geneva arms-control negotiations and the Reagan-Gorbachev summit. It seems more likely, however, that the timing was determined by the weapon program itself — never mind the consequences.

It's time to take a look at the consequences of making space still another battle area. We are shooting ourselves, not in the foot, but a lot closer to the head. Of course, we are responding to the current Soviet effort, itself a possible response to our own earlier capability. This cycle is a formula for continuing escalation of the arms race indefinitely.

In the past, none of these weapons has had a capability against many of the satellites that are most important to us. But when the Soviets match us again, as they inevitably will, then even in the outermost reaches of space there will be no sanctuary. Few satellites, military or civilian, will be safe. Our own space shuttle will be at risk. So will the Soviet manned space stations.

The crux of the issue for us is that we Americans are far more dependent on the use of space — at least for military purposes — than the Soviets are. We depend greatly on space for military communications, for command and control, for navigation and precise position-finding. The high accuracy we assume for certain missiles systems in our nuclear deterrent is dependent on satellites.

Most important of all, we need satellites to know what is going on. The detailed pictures we can take from space afford an extraordinary overview of every activity within the vast Soviet land mass. Not at all incidentally, satellites can give us a similar overview of other areas of the world — in time, for example, to detect and avert preparations for South Africa's nuclear weapons testing in 1977.

Nor is this all. Satellites can "see" enormous portions of the earth's surface. Equipped with radar, or infrared detectors or listening receivers, they can supplement photography to fill in the whole picture. From our intelligence perspective, we would be almost helpless without them, in this complex technological world.

From the standpoint of the Soviets, the situation is quite different. We are an open society. Vast amounts of military, political and industrial information are available to anyone —including the Soviets — for the price of subscription to a technical journal. Congressional testimony, official publications, contractors' brochures and newspaper stories are another rich lode of information.

The Soviets hardly need satellites to observe us. We "tell them all about it," so far as our own affairs are concerned. It's even difficult to imagine why they bother with satellite surveillance of us, except, possibly to attempt to track ships at sea — no easy task.

The development of anti-satellite weapons on both sides will, therefore, hurt us far more than it will hurt them.

We are not talking here about the administration's Strategic Defense Initiative (SDI) or "Star Wars" proposal. Although some of the technology is applicable to both ASAT and Star Wars, the problems posed in developing an anti-satellite system are infinitely simpler.

What are these "anti-satellite weapons?" The earliest were nuclear-tipped rockets, fired in the general direction of the target, and killing with a nuclear blast. Some others are simply satellites, maneuvered into a collision with the target satellite. The present Soviet ASAT is of this kind. Some are so-called space mines: companion satellites orbiting in close proximity to the target that can be blown up instantaneously on command, taking the victim with them. And some, far less developed, are laser or energy beams. The beams may be directed in space from one satellite against another, or from the ground to the target via a mirror in space.

The current Soviet anti-satellite weapon, which has been around for a while, is a dog. No doubt the Soviets can and will do better, if we reach no agreement with them. But an agreement that prevented the further development of satellite killers by either side would be so much in our own American interest that, if we can get it, we should grab it. The Soviets' operational capability is minimal. Ours, potentially much better, is not yet fully developed. Now is the time to make a deal.

Can we trust the Russians? How can we verify such an agreement, once it is signed? Here the situation looks pretty good.

A treaty stopping anti-satellite development would be readily verifiable. It's hard to hide activity in space. There's a cold black uncluttered background that makes detection easy. Satellite orbits are predictable, and orbital changes characteristic of anti-satellite tests stand out like a sore thumb. The characteristic dependence on specialized ground support is another giveaway.

Thus the very nature of space makes it unlikely that the Soviets would be able to develop a weapon clandestinely and then test it in space without our knowing about it. Moreover, even if they did develop an anti-satellite weapon, they would be unable to take out all our satel-

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lites simultaneously. So "breakout" of a signifigant ASAT capability, after clandestine development — that is, to be able to mount a surprise attack on a a whole group of satellites — is totally unlikely.

Even if it made any sense to test our anti-satellite weapon, to do so in advance of the Geneva talks makes no sense when we have so much to lose and so little, relatively, to gain. Testing now won't compel the Soviets to shape up at Geneva to our liking; rather they will raise the ante. Those who have had experience negotiating with the Soviets know this is by far the likeliest outcome of an attempt to twist their arm publicly.

Then there are the civilian uses of space, growing in importance everyday. From exploration of the far universe, to unlocking the secrets of energy and matter, to assessing the resources of earth, space has become indispensable. Weather reporting, television, communications — all are dependent on it.

The practitioners in space from hard-headed administrators like James S. Beggs, administrator of NASA, and Roald Sagdeev of the Soviet Space Institute, dreamers like Isaac Asimov and Carl Sagan, cosmonauts and astronauts alike have spoken eloquently about the future of mankind in the cosmos. Surely we cannot wish to put all this at risk.

Nor is space the exclusive property of the Soviets and ourselves, or of East and West or even of the developed nations. It is the inheritance of all mankind. No one of us has an exclusive right to control it, and no one of us is likely to own the effective means to control it, however hard and recklessly we may try.

But there is a worse concern. Just as atomic weapons, once our sole possession, spread first to the Soviets and then to a dozen nations, so will the capability to shoot down satellites. And with each player the risks will increase exponentially.

If we will *look*, we can see two roads into the future: one road perilous to ourselves and all others, the other leading to the peaceful use of space for all mankind.

If we will *listen*, we can hear the voices of sanity here, in Russia and around the world saying, "Put an end to the arms race in space".

And if we will *stop* — we and the Soviets — we can set an example that will keep space free of threat. Now is the time. Geneva is the place. Leadership is the key.

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